The Art of the



JORDAN AND HAMBURG LLP 122 East 42nd Street

122 East 42nd Street New York, NY 10168 Tel: (212) 986-2340

Tel: (212) 986-2340 Fax: (212) 953-7733

Docket No. F-6817
Date February 7, 2001

"EXPRESS MAIL" MAILING LABEL NO. EL 666 239 526 US	
DATE OF DEPOSIT February 7, 2001	
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addresse under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D. C. 202	
, Madeline Gonzalez	
(Typed or printed name of person mailing paper or fee)	
(Signature of person mailing paper of fee)	
THE ASSISTANT COMMISSIONED FOR DATENTS	
THE ASSISTANT COMMISSIONER FOR PATENTS Washington, D. C. 20231	
[] ATTN: BOX PATENT	T APPLICATION
[X] ATTN: BOX PCT	4 6 1000
[X] THIS IS THE NATIONAL STAGE OF PCT/EP99/05704 FILED Augus	t 0, 1999
Sir:	
Transmitted herewith for filing is the [X] Utility [] Design patent application of:	
Inventor/Application Identifier: Reto SIEBER et al.	
For: SELF-ADHESIVE FOIL	
Enclosed are:	
Sheets of drawings ([] formal [] informal size A4). [X]	f the
CLAIMS FILED	
	asic Fee \$860.00
Total Claims (over 20) x \$18.00 Independent Claims (over 3) x \$80.00	
[] Multiple Dependent Claim \$270.00 _	
[X] Reduce by 50% for Small Entity	\$430.00
[X] Foreign Language Filing Fee \$130.00	\$130.00
TOTAL FILING FEE [X] Please charge Deposit Account No. 10-1250 in the amount of	\$560.00
A duplicate copy of this sheet is attached.	\$560.00.
[X] Please charge to Deposit Account No. 10-1250 any further fees under 37 CFR 1.16; 37 CFR 1.17; 37 CFR 1.492.	<u></u>

JC02 Rec'd PCT/PTO 0 7 FEB 2001

[🕶]	Return Receipt Tosteatu
[]	Preliminary Amendment
[]	Assignment to
	 Assignment is of record in prior application Serial No. Assignment Recordation Form Cover Sheet. Charge \$40.00 to Deposit Account No. 10-1250 for recording Assignment.
[X]	Information Disclosure Statement and/or Information Disclosure Citation
[]	English translation
[X]	Small Entity Status is asserted.
[]	Applicant hereby claims the benefit of the filing date of the following provisional application(s) under the provisions of 35 USC 119.
[X]	Applicant hereby claims the benefit of the filing date of the following applications under the provisions of 35 USC 119 of which certified copies [] will follow [] are enclosed [X] have been filed in the International Bureau [] were filed in prior application No
	German Patent Appln. No. 198 35 919.5 filed August 7, 1998.
[]	This is a [] Continuation [] Divisional [] Continuation-in-Part of prior application Serial No
[]	Amend the specification by inserting before the first line the sentence:This is a [] continuation, [] division, [] continuation-in-part, of application Serial No. , filed

JORDAN AND HAMBURG LLP

C. Bruce Hamburg Reg. No. 22,389 Attorney for Applicants

PTO/PGT Rec'd 15 MAY 2001 09 / 7 6 2 5 3 0 #3

F-6817

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant

Reto SIEBER et al.

Serial No.

09/762,530

Filed

Not yet known (U.S. National Stage of

PCT/EP99/05704 filed August 6, 1999)

For

SELF-ADHESIVE SHEET

Assistant Commissioner for Patents Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Preliminary to examination, please amend the above-identified patent application as follows:

IN THE TITLE:

--SELF-ADHESIVE SHEET--.

IN THE CLAIMS:

Cancel claims 1-10 and substitute therefor the following claims:

--11. Self-adhesive sheet for bonding a floor covering to a floor, comprising a backing layer which is coated on a top surface, facing the floor covering, and on a bottom surface, facing the floor, with a pressure-sensitive adhesive coating, the pressure-sensitive adhesive coating having a different adhesive strength on the two surfaces and the adhesive strength on the bottom surface being lower than that on the top surface, the backing layer comprising a polymer film and the pressure-sensitive

F-6817 Ser. No. 09/762,530

adhesive coating at least on the bottom surface being planar, the self-adhesive film having a minimum width of 350 mm for extensive coverage of the floor to be covered with the floor covering.

- 12. Self-adhesive sheet according to Claim 11, wherein the self-adhesive sheet has a textile structure at least on the top surface.
- 13. Self-adhesive sheet according to Claim 12, wherein the textile structure has threads in a wide-meshed arrangement.
- 14. Self-adhesive sheet according to Claim 13, wherein the textile structure has threads running parallel in a wide-meshed arrangement and also threads arranged rhomboidally at an obtuse angle thereto.
- 15. Self-adhesive sheet according to one of Claims 12 to 14, wherein the textile structure has threads in a thread spacing of from 3 to 30 mm.
- 16. Self-adhesive sheet according to one of Claims 11 to 14, wherein the adhesive strength of the bottom surface expressed as adhesive force, measured in accordance with DIN 1939, is about from 0.8 to 5 N.
- 17. Self-adhesive sheet according to one of Claims 11 to 14, wherein the different adhesive strength of the two surfaces is brought about by different adhesive application rates expressed as weight of adhesive per unit area of surface, the surface with the greater adhesive strength having a higher adhesive application rate.

F-6817 Ser. No. 09/762,530

18. Self-adhesive sheet according to any of Claims 11 to 14, wherein the pressure-sensitive adhesive coating on the top surface comprises pressure-sensitive adhesive different from that on the bottom surface.

- 19. Self-adhesive sheet according to Claim 17, wherein the adhesive application rate on the top surface is in a range from 100 to 250 g/m² and on the bottom surface is in a range from 5 to 40 g/m².
- 20. Self-adhesive sheet according to one of Claims 11 to 14, further comprising a removable cover film on at least the top surface.
- 21. Self-adhesive sheet according to any of Claims 11 to 14, wherein the width of the self-adhesive sheet is in a range from 350 mm to 2000 mm.
- 22. Self-adhesive sheet according to claim 16, wherein the adhesive strength of the bottom surface expressed as adhesive force is about 1.5 to 3 N.
- 23. Self-adhesive sheet according to claim 22, wherein the adhesive strength of the bottom surface expressed as adhesive force is about 2.0 to 2.6 N.
- 24. Self-adhesive sheet according to claim 19, wherein the adhesive application rate on the bottom surface is about 8 to 20 g/m².
- 25. Self-adhesive sheet according to claim 21, wherein the width of the self-adhesive sheet is in a range of from 500 mm to 1500 mm.
- 26. Self-adhesive sheet according to claim 25, wherein the width of the self-adhesive sheet is in a range of from 600 to 1000 mm.
- 27. A method of bonding a floor covering to a floor comprising interposing a

F-6817 Ser. No. 09/762,530

self-adhesive sheet according to claim 11 between the floor covering and the floor.

- 28. A method according to claim 27, in which the floor covering is a carpet.
- 29. A method according to claim 28, in which the floor is parquet.--

REMARKS

This corresponds in substance to an amendment filed in the international stage but is tailored to U.S. practice by avoiding having any multiple dependent claim depend from another multiple dependent claim and by making preferred and most preferred ranges the subject of separate claims. Moreover, so that more weight can be given to the context in which the backing is used, method claims have been added.

Respectfully submitted,

JORDAN AND HAMBURG LLP

C. Bruce Hamburg Reg. No. 22,389

Attorney for Applicants

122 East 42nd Street New York, New York 10168 (212) 986-2340

PTO/PCT Rec'd 15 MAY 2001 09 / 762530

S 27724-PC

5

10

15

20

25

30

35

- 1 -

SELF-ADHESIVE SHEET

The invention relates to a self-adhesive sheet for bonding a floor covering to a floor.

Already known are self-adhesive tapes and sheets which have a pressure-sensitive adhesive coating applied to both surfaces of a backing layer. Either the backing layer of the self-adhesive tapes is itself designed as backing fabric, or a fabric is applied to the backing layer in order to obtain dimensional stability.

The pressure-sensitive adhesive coating has different adhesive strengths on the two surfaces of the backing layer. The adhesive strengths of the pressure-sensitive adhesive coating are chosen so that the top surface, facing the floor covering, has a higher adhesive strength than the bottom side, which faces the floor. The application rates at which the pressure-sensitive adhesive coatings are commonly used, especially on the bottom surface, are in the region of 100 g/m^2 ; the lowest are situated in the region of 70 g/m^2 , and virtually no manufacturer uses application rates below 70 g/m^2 .

The intention of the different pressuresensitive adhesive coatings and/or adhesive strengths
is that the floor covering, a carpet for example,
should on the one hand adhere well to the floor,
parquet for example, and on the other hand should be
releasable without residue from the floor, together
with the self-adhesive tape adhering to the floor
covering. In order to ensure secure adhesion both to
the floor covering and to the floor during laying, the
conventional self-adhesive tapes, however, since they
are generally not applied flatly, only have a small
difference in the pressure-sensitive adhesive coating
and/or in the adhesive strength of the two surfaces. As
a result of this, however, there is a risk that, if
bonding to the floor is excessive, part of the

pressure-sensitive adhesive will remain adhering to the floor, or that, during detachment, the self-adhesive tape will tend to part from the floor covering rather than from the floor. Accordingly, residueless detachment is not quaranteed under all conditions. It is true that the self-adhesive tapes being used include those whose adhesiveness differences are brought about on the respective surfaces by the structural differences which exist owing to the unevenness of the 10 backing fabric, i.e. the self-adhesive tapes have a "rough" surface of lower adhesiveness and a "smoother" surface of greater adhesiveness. However, it is not possible with this design either to quarantee residueless detachment of the floor covering from the 15 floor under all conditions, owing to the pointwise loads on the "rough" surface and the associated centres of adhesion between self-adhesive tape and floor.

The invention is therefore based on the object of providing a self-adhesive sheet which, under essentially all conditions, ensures both secure adhesion of the floor covering with the floor and residueless detachment of the floor covering from the floor, and so offers ease of handling.

20

25

30

35

The object is achieved in accordance with the invention with a self-adhesive sheet according to Claim 1 or 5. Judicious developments are specified in the dependent claims.

The self-adhesive sheet of the invention is used to bond a floor covering, especially a carpet, to a floor, especially parquet.

The self-adhesive sheet has a suitable backing layer. Preferably, the backing layer comprises polymer film, e.g. propylene or polyethylene film, although in principle it is also possible to use any other suitable material, such as rubber, latex, or the like.

At least on the top surface, facing the floor covering, the backing film has a fabric which serves in particular to maintain the dimensional stability of the self-adhesive sheet during laying and during

detachment. The fabric may also be disposed on the bottom surface, facing the floor, or on both surfaces. The fabric is formed by threads of suitable material of tensile strength.

5

10

30

35

In accordance with the invention, both surfaces have a pressure-sensitive adhesive coating, the pressure-sensitive adhesive coating and/or the adhesive strength on the bottom surface being only a fraction of that on the top surface. For this purpose, it is possible to use pressure-sensitive adhesives having different bond strengths on each of the two surfaces, or the same pressure-sensitive adhesive on each surface.

As the pressure-sensitive adhesive it has been found appropriate to use an acrylic dispersion enriched with resins and with UV protection and ageing protection contained therein, although it is also possible to use any other suitable pressure-sensitive adhesive.

The pressure-sensitive adhesive coating may be applied flatly; however, a pressure-sensitive adhesive coating arranged substantially in the form of stripes on the surfaces, with adhesive-free spaces in between, is also possible. The combination of two-dimensional application and striped application on one of the surfaces, or the combination thereof on one of the surfaces, is likewise possible.

In accordance with the invention, at least the bottom surface with the significantly reduced pressure-sensitive adhesive coating is of substantially planar design. The top surface as well may be of substantially planar design.

The inventive design of the self-adhesive sheet with a fraction of the pressure-sensitive adhesive coating on the bottom surface, owing to the relatively low level of pressure-sensitive adhesive coating and/or adhesive strength, offers particularly reliable and residueless detachment of the floor covering and/or the self-adhesive sheet adhering to it. Since the self-

adhesive sheet of the invention adheres securely to the floor covering because of the fact that the adhesive strength on the top surface is substantially greater in comparison to the bottom surface, easy detachment of the floor covering with the self-adhesive sheet adhering to it is possible. In addition, the substantially planar bottom surface of the selfadhesive sheet, in accordance with the invention, despite the relatively low level of pressure-sensitive adhesive coating and/or adhesive strength, produces secure bonding of the floor covering to a floor, especially to smooth parquet, since the bond is not simply pointwise, as in the case of self-adhesive tapes having structured bottom surfaces. Since, owing to the substantially planar bottom surface, in accordance with the invention, no centres of adhesion are produced, which because of their small areas do not offer secure bonding but instead adhere pointwise more strongly to the floor, the guarantee of secure bonding is supplemented by that of reliable detachment as well.

10

15

20

25

30

35

It is particularly advantageous if the selfadhesive sheet is designed so that its length and width
are such that, in contrast to conventional selfadhesive tapes, it extensively covers substantially the
entire floor to be covered with the floor covering. The
length is chosen in accordance with the requirements of
the spatial circumstances and the ease of processing.
As far as the width is concerned, a range from 350 to
2000 mm is preferred for reasons of ease of processing
and practicability. More preference is given to a width
range of from 500 to 1500 mm, and particular preference
to a range from 600 to 1000 mm. Of course, given
corresponding spatial circumstances, it may be
preferred to choose the lengths as well to be within
these ranges.

The extensive design of the self-adhesive sheet, like the substantially planar shaping of the bottom surface, even though the pressure-sensitive adhesive coating and/or the adhesive strength of this

surface is only a fraction of that of the top surface, offers particularly secure adhesion of the floor covering to the floor, since in this way a large adhesion area is obtained, in contrast to conventional self-adhesive tapes.

5

10

15

20

25

30

Since in each case it is possible to apply pressure-sensitive adhesives having different bond strengths to the surfaces, it is not solely the application rate of the adhesive that is responsible for the inventively different adhesive strengths, but also the different bond strengths of the pressure-sensitive adhesives used.

As a generally valid measurement technique for the adhesive strength of a pressure-sensitive adhesive coating, the measurement of the adhesive force in accordance with DIN 1939 is used. With this technique, a measurement is made of the force required to peel off the self-adhesive sheet, which is provided with the pressure-sensitive adhesive coating under investigation, having a defined bond strength and a defined application rate. In accordance with the test standard, the width of the self-adhesive sheet is 25 mm and its bond partner is a steel surface.

In accordance with the invention, preference is given to an adhesive force of the pressure-sensitive adhesive coating of the bottom surface, measured in accordance with DIN 1939, in a range from 0.8 to 5 N. More preferable is a range from 1.5 to 3 N, and the most preferred is an adhesive force range from 2.0 to 2.6 N.

For the adhesive force of the pressuresensitive adhesive coating of the top surface, measured in accordance with DIN 1939, a range of from 30 to 60 N is preferred.

In one preferred embodiment of the invention, the different pressure-sensitive adhesive coating and/or the different adhesive strength or adhesive force of the two surfaces is brought about by means of different adhesive application rates, the top surface

with the greater adhesive strength having a higher adhesive application rate than the bottom surface.

Particular preference is given to an embodiment in which the adhesive application rate on the top surface is in the range from 100 to 250 g/m² and on the bottom surface is in the range from 5 to 40 g/m². For the bottom surface, a range from 8 to 20 g/m² is most preferred.

As already mentioned, different pressuresensitive adhesives with different bond strengths may be used on each of the two surfaces, or the same pressure-sensitive adhesive may be used on each surface. The figures above relate to the case where the same pressure-sensitive adhesive is applied to the top and to the bottom surface.

10

15

20

25

30

35

The pressure-sensitive adhesive coating may be applied flatly; however, a pressure-sensitive adhesive coating arranged substantially in the form of stripes on the surfaces, with adhesive-free spaces in between, is also possible. The combination of two-dimensional application and striped application on one of the surfaces, or the combination thereof on one of the surfaces, is likewise possible. The stated adhesive application rates relate in one of these cases only to the surface regions provided with a pressure-sensitive adhesive coating.

In a further preferred embodiment of the invention, the textile structure, on at least the top surface of the backing layer of the self-adhesive sheet, comprises threads of suitable material of tensile strength, such as, in particular, cotton, plastic, or the like, in a wide-meshed arrangement. The arrangement may adopt any substantially wide-meshed design; particular preference is given to threads arranged at right angles to one another and lying parallel in the respective direction. The threads may be aligned in the respective directions parallel to the side edges of the self-adhesive sheet, or else may form any desired angle thereto.

Particular preference is given to an embodiment in which the textile structure has threads running parallel and also threads arranged rhomboidally thereto at an obtuse angle.

With particular preference, the respective thread spacing of the textile structure is between 3 and 30 mm.

5

10

15

20

25

30

The textile structure may comprise a fibre web or else a reticularly spun structure in which the threads consist of fine single filaments spun together with one another. The threads of the textile structure are located on at least the top surface of the backing layer and are embedded in, and substantially surrounded by, the pressure-sensitive adhesive layer, so that the corresponding surface of the self-adhesive sheet as well is substantially planar in design.

The wide-meshed textile structure ensures the dimensional stability of the self-adhesive sheet, with the substantially planar design of the corresponding surface also remaining substantially maintained. This facilitates the reliable detachment of the floor covering from the floor, since, accordingly, during detachment, the self-adhesive sheet adheres to the floor covering securely and with dimensional stability.

By virtue of the particularly preferred parallel and also rhomboidal arrangement of the threads, an additional dimensional stability is produced in the oblique direction, i.e. in the direction of the rhomoidally arranged threads. This additional stability is of particular advantage when the floor covering is removed obliquely (in relation to the threads arranged parallel to the edges) and offers additional reliability for the residueless detachment from the floor.

In order to make it particularly easy to handle the self-adhesive sheet before and during laying and bonding of a floor covering to a floor, in a further preferred embodiment the self-adhesive sheet, at least

on the top surface, has a removable cover film for covering the pressure-sensitive adhesive coating.

5

10

25

30

35

It is also possible for there to be a removable cover film additionally, or only, on the bottom surface. Owing to the substantially lower adhesive strength of the bottom surface, however, this is not absolutely necessary.

The cover film preferably comprises a conventional, silicone-treated release paper, which bears with virtually no gap against the corresponding surface, adhering but removable.

For the purpose of transportation, the selfadhesive sheet may be in roll form.

A self-adhesive sheet of the invention is used 15 preferably as follows:

The entire floor is covered with the selfadhesive sheet. The bottom surface of reduced adhesive strength is directed towards the floor. During this procedure, the top surface is preferably covered with 20 'the cover film. Then the floor covering is laid on provisionally, and cut to size if necessary. Subsequently, part of the floor covering is folded back again and the cover film is removed on this part of the self-adhesive sheet. The folded-back part of the floor covering is folded down again onto the top surface of greater adhesive strength, and is pressed on if necessary. The same procedure is followed with the remaining parts of the floor covering, until the entire floor covering has been extensively bonded to the floor.

All that is required for the residueless detachment of the floor covering is to pull it up from the floor. During this operation, the self-adhesive sheet parts from the floor and remains adhering to the floor covering. If it is desired to reuse the floor covering, with the self-adhesive sheet now already adhering to it, the bottom surface, provided with pressure-sensitive adhesive coating, can be protected

with a suitable cover film as the floor covering is rolled up.

An alternative option to the above-described self-adhesive sheet of the invention with a textile structure, arranged at least on the top surface, for providing dimensional stability is a self-adhesive sheet of the invention without a textile structure.

5

10

15

20

For this purpose, however, a particularly suitable backing layer, possessing tensile strength and stretch resistance, is required in order to maintain the dimensional stability. Such a layer may comprise the materials already mentioned above for a backing layer, although the thicknesses chosen must usually be greater than in the case of a self-adhesive sheet with an additional textile structure.

All of the above remarks, described embodiments, material, numerical and range data, and processes, with the exception of those points relating specifically to the textile structure, are also intended to apply to the self-adhesive sheet of the invention without a textile structure.

CLAIMS

- Self-adhesive sheet for bonding a floor
 covering, especially a carpet, to a floor, especially parquet, having a backing layer made in particular of polymer film, which is coated on a top surface, facing the floor covering, and on a bottom surface, facing the floor, with a pressure-sensitive adhesive coating and which at least on the top surface has a textile
- which at least on the top surface has a textile structure, the pressure-sensitive adhesive coating having a different adhesive strength on the two surfaces,

characterized in that

25

- the pressure-sensitive adhesive coating and/or the adhesive strength on the bottom surface is a fraction of that on the top surface and at least on the bottom surface is of substantially planar design.
- Self-adhesive sheet according to Claim 1,
 characterized in that the textile structure has threads in a wide-meshed arrangement.
 - 3. Self-adhesive sheet according to Claim 1 or 2, characterized in that the textile structure has threads running parallel and also threads arranged rhomboidally at an obtuse angle thereto.
 - 4. Self-adhesive sheet according to one of Claims 1 to 3, characterized in that the textile structure has threads in a thread spacing of from 3 to 30 mm.
- 5. Self-adhesive sheet for bonding a floor
 covering, especially a carpet, to a floor, especially
 parquet, having a backing layer made in particular of
 polymer film, which is coated on a top surface, facing
 the floor covering, and on a bottom surface, facing the
 floor, with a pressure-sensitive adhesive coating, the
- pressure-sensitive adhesive coating having a different adhesive strength on the two surfaces, characterized in that

the pressure-sensitive adhesive coating and/or the adhesive strength on the bottom surface is a fraction

of that on the top surface and at least on the bottom surface is of substantially planar design.

- 6. Self-adhesive sheet according to one of Claims 1 to 5, characterized that its length and width are designed so that substantially the entire floor to be covered with the floor covering can be covered extensively.
- 7. Self-adhesive sheet according to one of Claims 1 to 6, characterized in that the adhesive strength of the bottom surface features an adhesive force (measured in accordance with DIN 1939) in the order of magnitude of from 0.8 to 5 N, in particular from 1.5 to 3 N and especially from 2.0 to 2.6 N.
- 8. Self-adhesive sheet according to one of Claims
 15 1 to 7, characterized in that the different adhesive
 strength of the two surfaces is brought about by
 different adhesive application rates, the surface with
 the greater adhesive strength having a higher adhesive
 application rate.
- 9. Self-adhesive sheet according to Claim 8, characterized in that the adhesive application rate on the top surface is in the range from 100 to 250 g/m² and on the bottom surface is in the range from 5 to 40 g/m², in particular from 8 to 20 g/m².
- 10. Self-adhesive sheet according to one of Claims 1 to 9, characterized in that there is a removable cover film on at least the top surface.

Abstract

Described is a self-adhesive sheet for bonding and residueless detachment of a floor covering, especially a carpet, to and from a floor, especially parquet, having a backing layer made in particular of polymer film, which is coated on a top surface, facing the floor covering, and on a bottom surface, facing the floor, with a pressure-sensitive adhesive coating and, it being possible, but not mandatory, for the top surface at least to have a textile structure, the pressure-sensitive adhesive coating having a different adhesive strength on the two surfaces, such that the pressure-sensitive adhesive coating and/or the adhesive strength on the bottom surface is a fraction of that on the top surface and at least on the bottom surface is of substantially planar design.

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

(Includes Reference to PCT International Applications)

Attorney's Docket Number

F-6817

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SELI	F-ADHESIVE FOIL	
the specific	ation of which (check only one item below):	
[]	is attached hereto.	
[]	was filed as United States application	
	Serial No.	
	on	<u> </u>
	and was amended	
	on	(if applicable).
[X]	was filed as PCT international application	
	Number <u>PCT/EP99/05704</u>	
	on August 6, 1999	
	and was amended under PCT Article 19	
	on	(if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

Country (if PCT indicate "PCT")	Application Number	Date of Filing (day, month, year)	Priority Claimed Under 35 USC 119
Germany	198 35 919.5	7, August 1998	[X]Yes []No
			[] Yes [] No
			[] Yes [] No
		`	[] Yes [] No
1.4			[] Yes [] No

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (Continued)
(Includes Reference to PCT International Applications)

1-00

F-6817

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

U.S. Application Number U.S. Filing Date Patented Pending Abandon PCT APPLICATIONS DESIGNATING THE U.S. PCT Application No. PCT Filing Date U.S. Serial Numbers Assigned (if any) POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosect application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456. C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Alfred D'Andrea Reg. No. 18,330 Alfred D'Andrea Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York, New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Reidmen Switzerland Polit Ortice Address Miramar, 6019 Sigigen, Switzerland Polit Ortice Address Miramar, 6019 Sigigen, Switzerland Polit Ortice Address Miramar, 6019 Sigigen, Switzerland		U.S. APPLICATIONS		S	TATUS (Check O	ne)
PCT Application No. PCT Filing Date U.S. Serial Numbers Assigned (if any) POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosect application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456. C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and that such willful false state and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Pull Name of Sole or First Inventor Redo SIEBER Residence Sigigen, Switzerland Pull Name of Sole or First Inventor Redo Sigigen, Switzerland Number of Sole or First Inventor Redo Sigigen, Switzerland Tour Contract Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any	U.S. Application Number	U. S. F	iling Date	Patented	Pending	Abandone
PCT Application No. PCT Filing Date U.S. Serial Numbers Assigned (if any) POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosect application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456. C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and that such willful false state and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Pull Name of Sole or First Inventor Redo SIEBER Residence Sigigen, Switzerland Pull Name of Sole or First Inventor Redo Sigigen, Switzerland Number of Sole or First Inventor Redo Sigigen, Switzerland Tour Contract Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any						
PCT Application No. PCT Filing Date U.S. Serial Numbers Assigned (if any) POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosect application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456. C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and that such willful false state and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Pull Name of Sole or First Inventor Redo SIEBER Residence Sigigen, Switzerland Pull Name of Sole or First Inventor Redo Sigigen, Switzerland Number of Sole or First Inventor Redo Sigigen, Switzerland Tour Contract Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any Date The Cliteration of Second Joint Inventor, if any						
PCT Application No. PCT Filing Date U.S. Serial Numbers Assigned (if any) POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosect application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456. C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street, New York, New York 10168 Direct Telephone Calls to: C. Bruce Hamburg (212) 986-2340 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reidence Sigigen, Switzerland Poist Office Address Miramar, 6019 Sigigen, Switzerland		<u></u>				
POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosect application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456. Herbert F. Ruschmann Reg. No. 35,341. C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Alfred D'Andrea Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street, New York, New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Pull Name of Second Joint Inventor. If any Inventor Signature Date Cliteraturally Switzerland Pull Name of Second Joint Inventor. If any Inventor Signature Date Date Date Date Date Date Date Dat	PCT API	LICATIONS DESIGNATING	THE U.S.	· · · · · · · · · · · · · · · · · · ·		
application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456 C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York, New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on inform and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Miramar, 6019 Sigigen, Switzerland Poin Office Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date A. 4. O Culternship Switzerland Date Date The Point Inventor, if any Date	PCT Application No.	PCT Filing Date		v		
application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456 C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York, New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on inform and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Miramar, 6019 Sigigen, Switzerland Poin Office Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date A. 4. O Culternship Switzerland Date Date The Point Inventor, if any Date						
application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456 C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York, New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on inform and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Miramar, 6019 Sigigen, Switzerland Poin Office Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date A. 4. O Culternship Switzerland Date Date The Point Inventor, if any Date						
application and transact all business in the Patent and Trademark Office connected therewith. Frank J. Jordan Reg. No. 20,456 C. Bruce Hamburg Reg. No. 22,389 Marvin Turken Reg. No. 18,330 Reg. No. 18,330 Reg. No. 27,752 Send Correspondence To: Jordan and Hamburg LLP 122 East 42nd Street New York, New York 10168 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on inform and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Miramar, 6019 Sigigen, Switzerland Poin Office Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date A. 4. O Culternship Switzerland Date Date The Point Inventor, if any Date						
New York, New York 10168 (212) 986-2340 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Residence Sigigen, Switzerland Post Office Address Miramar, 6019 Sigigen, Switzerland Inventor's Signature Date A. 4. 6. Date The Date	Send Correspondence To			Direct '		
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on infor and belief are believed to be true; and further that these statements were made with the knowledge that willful false state and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Full Name of Sole or First Inventor Reto SIEBER Residence Sigigen, Switzerland Poist Office Address Miramar, 6019 Sigigen, Switzerland Full Name of Second Joint Inventor, if any Inventor's Signature Date ATLACA Date The Total States and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on infor and belief are true and that all statements made on information and the like so that all statements made on information and the like so that all statements and the like so that all statements made on information and the like so that all statements and the like so that all						
Residence Sigigen, Switzerland Póst Office Address Miramar, 6019 Sigigen, Switzerland Full Name of Second Joint Inventor, if any Inventor Signature Date 1 7001	and belief are believed to be and the like so made are pur and that such willful false	e true; and further that the nishable by fine or impriso	se statements were made with onment, or both, under section the validity of the application	h the knowle n 1001 of Tit	dge that willfu le 18 of the Ur tent issuing the	l false state iited States
Sigigen, Switzerland Prost Office Address Miramar, 6019 Sigigen, Switzerland Full Name of Second Joint Inventor, if any Inventor & Signature Date 17001	Reto SIEBER		ZNL	/ >	- <u>1</u> 1.	4.0
Post Office Address Miramar, 6019 Sigigen, Switzerland Full Name of Second Joint Inventor, if any Inventor & Signature Date 11/2001	Residence		1		Citizenship	
Miramar, 6019 Sigigen, Switzerland Full Name of Second Joint Inventor, if any Inventor skignsture Date Date		ıd <i>C∦X</i>			Switzerland	
Full Name of Second Joint Inventor, if any Inventor disignature Date 171/2001	Post Office Address					
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	iligen, Switzerland				
1× 11 1/2001	Miramar, 6019 Sig					
Marco SIEBER × M. MUD/ × 14.4. 2001	Miramar, 6019 Sig					
			Inventor usigniture		Date 11	200/
	Full Name of Second Joint Inventor, if an		Inventor al Signifure		Date HH.	2001

Im Fang 4, 6026 Rain, Switzerland

"Full Name of Third Joint Inventor	Inventor's Signature	Date
Patrick VANDEWEERDT	inventor's Signature	3-4-20
Residence		Citizenship
	0.41	
Huenenberg, Switzerland	CHX	Belgium
Post Office Address		
Sonneguet, 6331 Huenenberg,	Switzerland	
Full Name of Fourth Joint Inventor	Inventor's Signature	I p
Pull Name of Pouril John Inventor	nivenibi x Signamie	Date
Residence		Citizenship
Post Office Address		
Pull Name of Fifth Joint Inventor	Inventor's Signature	Date
Residence		Citizenship
Post Office Address		
Full Name of Sixth Joint Inventor	Inventor's Signature	Date
Full Name of Sixth Joint Inventor	Inventor's Signature	Date
Full Name of Sixth Joint Inventor	Inventor's Signature	Date Cinzenship
	Inventor's Signature	
	Inventor's Signature	
Residence	Inventor's Signature Inventor's Signature	
Residence Post Office Address		Cinzenship
Residence Post Office Address		Cinzenship
Residence Post Office Address Full Name of Seventh Joint Inventor		Cinzenship
Residence Post Office Address Full Name of Seventh Joint Inventor		Cinzenship
Post Office Address Full Name of Seventh Joint Inventor Residence		Cinzenship
Post Office Address Full Name of Seventh Joint Inventor Residence		Cinzenship

Citizenship

Residence

Post Office Address